

UNITED STATES DEPARTMENT OF AGRICULTURE  
FOREST SERVICE

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Insect Control  
Fremont

REPORT ON PINE BEETLE CONTROL WORK ON THE  
FREMONT NATIONAL FOREST IN  
FALL OF 1927

Submitted January 7, 1928

By



Approved:  
January 14, 1928

By GILBERT D. BROWN  
Forest Supervisor.

LAWRENCE FRIZZELL,  
Assistant Supervisor.



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1. Name of Project, Area and Units Treated.

(a) Insect control operations by the Forest Service in the fall of 1927 were conducted on the southern portion of the Owens Unit, Fremont National Forest, in Township 38 S., Ranges 15 and 16 E., W.M. The area comprises approximately 10,880 acres, or about 17 sections. It is bounded on the north by the section line one mile south of the north line of this township, and on the east, south and west by Fishhole Creek. See attached map.

Much of the area is rough and rocky and carries a dense stand of reproduction and underbrush. The altitude ranges from 5500 to 6500 feet.

(b) The area as above described is a natural and compact unit. Therefore, in order to do a clean job and protect the work done within the Forest boundary it is necessary to cover the lands lying between Fishhole Creek and the Forest boundary. The ownership of this area as outlined is 50% private land and 50% Government. At the lower altitudes the timber stand is of pure yellow pine type, while at the higher altitudes it is a mixture of yellow pine, about 65%, white fir 25% and incense cedar 5%. Taking the area as a whole it is estimated that the stand will average about 10 M. feet B.M. per acre. Private timber in this locality was purchased late in the fall of 1927 at \$4.00 per M. board feet.

2. Brief History of Infestation Previous to Control.

(a) The following is quoted from Mr. F. P. Keen's report of December 1, 1927, and it is believed, covers conditions on this area quite accurately:

"Over seventy-five percent of the loss of western yellow pine on this area is caused by attacks of the western pine beetle (*Dendroctonus brevicornis* Lec.) The mountain pine beetle and flathead borers take second and third places respectively. These three together with a small amount of work by species of *Ips* cause the death of 98% of the insect killed pines in this region."

(b) No control work has been done on this area since early in the summer of 1922. Since that time the infestation has been very severe and still appears to be in the epidemic stage, as the infested trees are usually found in groups ranging from two to twenty and as many as 300 trees per section are found.

It is noted that the infestation is generally heaviest where the soil is shallow, rocky and moisture conditions are poor, following south and west slopes and along tops of low ridges.



(c) This work was authorized and \$6000 set aside to cover cost of same, upon the findings of the reports of Messrs. Keen and Jaenicke of June 27 and 28 respectively.

### 3. Organization of Control Work.

(a) Since the private and Government land in the Owens Unit is so intermingled it was thought best for administrative reasons to divide the territory. With the reports of Messrs. Keen and Jaenicke of June, 1927, in mind the following agreement between the Manager of the Klamath Forest Protective Association and the Supervisor of the Fremont National Forest was entered into:

#### MEMORANDUM OF AGREEMENT FOR BEETLE CONTROL OPERATIONS ON OWENS UNIT

"It is mutually agreed between Jackson F. Kimball, Manager of the Klamath Forest Protective Association, and Gilbert D. Brown, Supervisor of the Fremont National Forest, that beetle control operations for the fall and winter of 1927 shall be carried out in accordance with the recommendation of the Bureau of Entomology on the Owens Unit; that the Klamath Forest Protective Association will treat all private land within the unit agreed upon and that the Forest Service will treat the National Forest land within the unit, provided, however, that in order to save duplication of travel and expense, thereby expediting the work and reducing the cost, that a division line will be made along the section lines running east and west one mile south of the township line between 37 and 38, Ranges 15 and 16, as a starting point for each operation, the Forest Service to handle the area south and the Klamath Forest Protective Association to handle the area north of said line.

"The unit for cooperation in this area will be a tree basis over 12 inches in diameter; smaller trees than 12 inches to be treated but not counted. For all trees over 12 inches in diameter treated on private land by the Forest Service an equal number of trees over 12 inches in diameter will be treated by the Association on Forest land.

"It is further understood and agreed that diligent effort will be made to prevent the spread of fire from burning operations by all parties concerned; that frequent inspections will be made by each party to this agreement to insure a satisfactory compliance with the agreement. Further, that so far as funds will permit the entire area outlined will be covered by control operations to the end that the most benefit may be secured.



"Dated this 31st day of October, 1927.

By Jackson F. Kimball  
Manager Klamath Forest Protective  
Association.

By Gilbert D. Brown  
Supervisor Fremont National Forest"

(b) Only one camp was operated by the Forest Service and was located near the center of Section 19, T. 38 S., R. 16 E., W.M. It was realized at the time that this was not the best location for the camp from which to properly handle the work. However, this was the only available water at that season of the year. No experienced men for this class of work were available, which made it necessary to train spotters, compassman and treaters. It of course will be realized that this slowed up the work at the beginning and helped to increase the cost of the job.

Much credit is due Mr. A. J. Jaenicke for his invaluable assistance in helping to organize this work and get it under way. He spent about ten days with us at the beginning and with his knowledge and wide experience in this work was able to break in the spotting crew and get things running smoothly much sooner than would have otherwise been possible.

(c) The camp was established October 10 and closed December 9, 1927. Owing to the dry weather which prevailed from October 11 to 24, it was necessary to exercise extreme precaution with fire. Therefore to prevent damage to reproduction and standing timber, no burning was done during this period. But in order to keep the job going the trees were treated and prepared to burn. About two sections were handled in this manner until storms made burning safe. No fires were started until October 25. It was then necessary to return and burn the treated timber on the area which had been covered during the dry spell. With the exception of a few times during or just after a storm burning conditions were good the remainder of the season.

That part of the Owens Unit for which the Forest Service is responsible is rather inaccessible and can be reached only by poor mountain roads. During the first two weeks of control operations no great difficulty was experienced from this source. After the stormy weather began considerable difficulty was encountered in the transportation of men and supplies and conditions continued to grow worse until the close of the work in December. Owing to the high altitude the storms were much more severe here than in the vicinity of the Klamath Forest Protective Association camp, which was located from 1000 to 1500 feet lower than the Forest Service camp. A heavy rain storm prevailed throughout this locality from about October 30 to November 21, during which time the soil became so saturated that it was impossible to use trucks in transporting the men to and from work. This necessitated a walk of six to ten miles daily for about



three weeks, which naturally slowed up the work to some extent. During this stormy spell no time was lost as the men worked every day.

(d) The camp personnel consisted of:

1 camp foreman - Assistant Supervisor,	\$2500	per year					
1 cook - - -	\$125	per month					
1 cook's helper when							
crew was large	4.50	per day, board	1.20	per day			
2 spotters - - -	5.00	"	"	"	"	"	"
1 compassman - -	5.00	"	"	"	"	"	"
1 saw filer - -	5.50	"	"	"	"	"	"
12 to 16 treaters	4.50	"	"	"	"	"	"

The number of men ranged from 17 to 23 as the work and weather conditions warranted.

4. Amount of Work Accomplished.

(a) Spotting was done by a three-man crew, i.e. compassman and two spotters. Most of the area was covered by running five chain strips. Ten chain strips were used only in very open stands or along rock flats, and at timber line along sagebrush areas.

(b) Trees were felled, peeled and bark burned. Treating crews were composed of two men.

(c) Work done by Forest Service.

Number of trees treated:

1. On private lands - 431
2. On National Forest lands - 631

Area treated:

1. Private lands - 2480 acres
2. National Forest lands - 4280 acres

Area to be treated next spring by Forest Service

1. Private lands - 2960 acres
2. National Forest lands - 1160 acres

Owing to altitude and condition of roads it is expected that considerable difficulty will be encountered in transporting camp equipment, men and supplies to the job next spring.

It is planned to establish camp first in Section 23, T. 38 S., R. 15 E., W.M. and clean up that locality as it is at the lowest altitude, lies mostly on south and west slopes and will dry out early. When the low country is cleaned up it is planned to move the camp to Section 7, T. 38 S., R. 16 E., W.M. and clean up sections 12, 7, 8 and 9. As these sections lie at an altitude of 6200 to 6500 feet, burning conditions should remain good until late in the season.

It is estimated that approximately 600 infested trees will be found on the remainder of this area next spring and \$3500 will be needed to complete the job.



5. Work Done by Association.

We have no authentic data of work accomplished by the Association. However, in an interview with the camp foreman about 10 days before their camp closed the following figures were obtained. They are rough approximations.

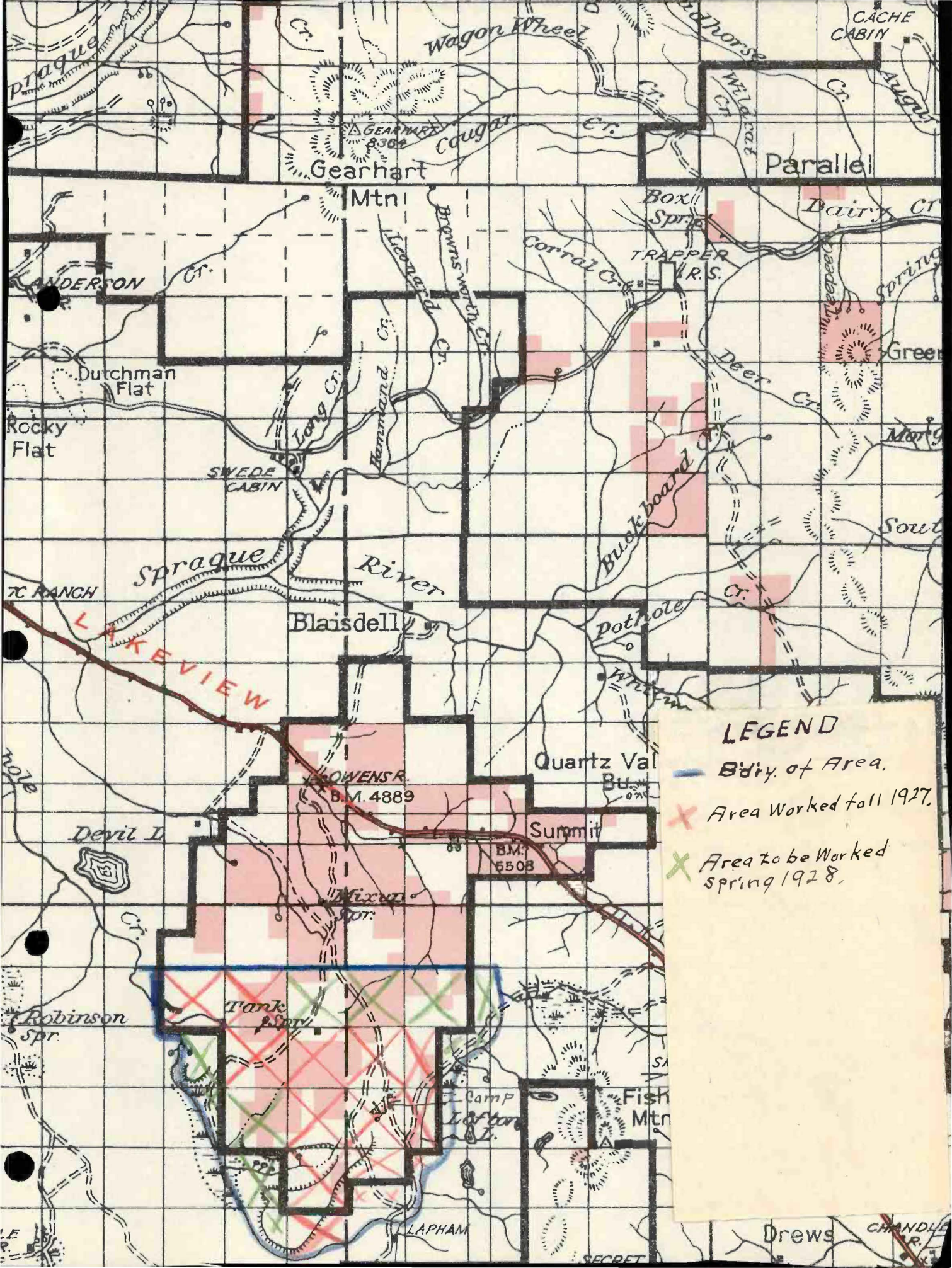
Number of trees treated - National Forest lands - 452  
Area treated - National Forest lands - 2080 acres.

It is understood that the infestation runs considerably heavier on the area for which the association is responsible, than that on which the Forest Service is conducting control operations.




January 7, 1928

Assistant Supervisor.





### LEGEND

-  Bdy. of Area.
-  Area Worked fall 1927.
-  Area to be Worked spring 1928.